ABSTRACT

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Availability of electrical components to support shipbuilding industry in Indonesia remains largely imported from abroad. High costs and long delivery times of components influence the time of ship building.

The number of electrical components needs is influenced by the type of vessel itself. Approximation method to estimate how much electricity needs of ship components used in the construction of new vessels in Indonesia that is by knowing in advance the number of new ship needs. That is by knowing the realization of the number of ships to be built in Indonesia. To then be forecasting a new ship in 2011 - 2013 with the method Moving Average and Exponential Smoothing. Then the forecasting results of this new vessel multiplied by the number of ships electrical component needs from a comparison of existing ships.

Result from this research’s the number of ships to be built in the year 2010 is 41 units with various types of vessels. Results of forecasting demand for new ships is 37 units of 2011 vessels, 2012 is 37 units and 2013 is 36 ships. Electric components ship needs in 2010 are: 763 768-meter cable, MSB 73 units, Genset 88 units, 892 units of the Panel, Lighting unit 8792, Socket 2066 units, the Switch 1616 unit. The forecast result of the electrical components of the vessel needs to the year 2011 is: 740 897-meter cable, MSB 67 units, Genset 85 units, 850 units of the Panel, Lighting unit 8496, Socket and Switch 1976 units 1579 units. Year 2012 is : 732 341-meter cable, MSB 66 units, Genset 83 units, 821 units of the Panel, Lighting unit 8401, Socket and Switch 1957 units 1564 units. Year 2013 is : 725 187-meter cable, MSB 67 units, Genset 84 units, 869 units of the Panel, Lighting unit 8258, Socket and Switch 1941 units 1526 units. Cost of industrial activities for MSB & Panels Rp. 2.915.913.000,- BEP in year-6. Cost of industrial activities for gensets Rp. 3.127.278.000,- BEP in year-7. Cost of industrial activities for light boxes and switches Rp. 1.999.247.250,- BEP in year-5. Cost of industrial activities for cables Rp. 2.439.591.000,- BEP in year-4.

Keywords : New Building Ship, Ship Electrical Components Industrial